CLAIMS

1. A method of modulating neuronal activity, comprising the step of administering an effective amount of a neuroactive peptide having at least one of the biological activities of angiotensin IV as herein defined, comprising the amino acid sequence: Leu-Val-Val-Tyr-Pro-Trp-Thr-Gln-Arg-Phe, (SEQ ID NO:1), or a biologically-active analogue or fragment of said peptide, to a mammal in need of such treatment.

2. A method of modulating neuronal activity, comprising the step of administering a biologically-active non-peptide analogue of the neuronal peptide according to claim 1 to a mammal in need of such treatment.

3. A method according to claim 2, in which the biologically-active analogue is a peptidomimetic compound.

4. A method according to ~~any one of claims 1 to 3,~~ claim 1 in which the biological activity is selected from the group consisting of modifying learning, modifying behaviour, vasoactive effects, dilation of cerebral arteries, increase in renal blood flow, increase in stereotypy behaviour, facilitating memory retrieval, neurite modelling and alleviation of the effects of spinal cord injury.

5. A method according to ~~any one of claims 1 to 4,~~ claim 1 wherein said neuronal activity is selected from the group consisting of motor neuron activity, cholinergic neuron activity and neuronal development.

6. A method of treating a condition selected from the group consisting of dementia; Alzheimer's disease; neuro-degenerative disorders involving one or more of cholinergic pathways, motor pathways, or sensory pathways; motor neuron disease; sensory peripheral neuropathies; motor peripheral neuropathies; brain injury; and spinal cord injury resulting from one or more trauma, hypoxia, and vascular disease, comprising the step of administering an effective amount of a neuroactive peptide having at least one of the biological activities of angiotensin IV as

herein defined, comprising the amino acid sequence: Leu-Val-Val-Tyr-Pro-Trp-Thr-Gln-Arg-Phe, (SEQ ID NO:1), or a biologically-active analogue or fragment of said peptide, to a mammal in need of such treatment.

7. A method according to claim 6, comprising the step of administering a biologically-active non-peptide analogue of the neuroactive peptide of claim 6 to a subject in need of such treatment.

8. A method according to claim 7, in which the biologically-active analogue is a peptidomimetic compound.

9. A method according to ~~any one of claims 6 to 8,~~ Claim 6 in which the biological activity is selected from the group consisting of modifying learning, modifying behaviour, vasoactive effects, dilation of cerebral arteries, increase in renal blood flow, increase in stereotypy behaviour, facilitating memory retrieval, neurite modelling and alleviation of the effects of spinal cord injury.

10. A method according to ~~any one of claims 1 to 9,~~ Claim 1 in which the mammal is a human.

11. A method of screening for putative agonists or antagonists of the effect of LVV-haemorphin-7 on neuronal activity, comprising the step of testing the ability of the compound to stimulate or inhibit the effect of LVV-haemorphin-7 on a biological activity selected from the group consisting of a) modifying learning, b) modifying behaviour, c) vasoactive effects, dilation of cerebral arteries, increase in renal blood flow, increase in stereotypy behaviour, f) facilitating memory retrieval, neurite modelling and alleviation of the effects of spinal cord injury.

12. An antagonist of LVV-haemorphin-7, identified by the method of claim 11.

13. An agonist of LVV-haemorphin-7, identified by the method of claim 11.

14. A method of modulating neuronal activity, comprising the step of administering an effective amount of an antagonist according to claim 11 to a mammal in need of

such treatment.

15. A method of modulating neuronal activity, comprising the step of administering effective amount of an agonist according to claim 12 to a mammal in need of such treatment.

16. A pharmaceutical composition comprising an agonist according to claim 11, together with a pharmaceutically acceptable carrier.

17. A pharmaceutical composition comprising an antagonist according to claim 12, together with a pharmaceutically acceptable carrier.

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